UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,135	11/29/2001	Wilfred C. Kittler JR.	1330.65923/DTI 4021	7605

7590 03/23/2004

Thomas R. Juettner
Greer, Burns & Crain, Ltd.
Suite 2500
300 South Wacker Drive
Chicago, IL 60606

EXAMINER	
PIZIALI, ANDREW T	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/021,135	KITTLER, WILFRED C.	
	Examiner	Art Unit	
	Andrew T Piziali	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *4,5 and 9-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 6-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 3/4/2004 has been entered. The examiner has withdrawn the 35 USC 112 rejections of claims 8-9 based on the amendments to claims 8-9.

Election/Restrictions

2. Newly amended claim 9 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Original claim 9 was drawn to a conductive article comprising a second layer of material of high refractive index having a thickness in the order of about 61 nm and a second layer of material of low refractive index having a thickness in the order of about 61 nm. In newly amended claim 9 the applicant claims a conductive article comprising a second layer of material of high refractive index having a thickness in the order of about 16 nm and a second layer of material of low refractive index having a thickness in the order of about 50 nm.

3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 9 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,590,622 to Nakanishi et al. (hereinafter referred to as Nakanishi).

Regarding claims 1-3 and 6-8, Nakanishi discloses a conductive article of manufacture having its conductive component outermost comprising a polymeric substrate, a first layer of material of high refractive index (TiO_2) deposited on the substrate, a first layer of material of low refractive index (SiO_2) deposited on said first layer of material of high refractive index, a second layer of material of high refractive index (TiO_2) deposited on said first layer of material of low refractive index, a second layer of material of low refractive index (SiO_2) deposited on said second layer of material of high refractive index, and a layer of conductive material (ITO) overlying said second layer of material of low refractive index, said conductive layer being outermost for direct electrical contact, said material of high refractive index having an index of refraction equal to or greater than the index of refraction of said substrate, and said material of low refractive index having an index of refraction less than the index of refraction of said material of high refractive index, said layers of materials of high and low refractive index substantially optically matching the refractive indices of said layer of conductive material and said substrate and minimizing reflection of the article over the visible light spectrum (see entire document including column 3, lines 9-32).

Regarding claim 8, Nakanishi discloses that the conductive article may be used with its conductive layer exposed to air (see Figures).

Response to Arguments

6. Applicant's arguments filed 3/4/2004 have been fully considered but they are not persuasive.

The applicant asserts that Nakanishi does not teach or suggest a conductive article having the conductive component outermost. The examiner respectfully disagrees. Conductive component 14 is the outermost component of the article consisting of substrate (11), adhesion layer (12), antireflection layer (13), and transparent conductive layer (14) (Figure 1).

The applicant asserts that there is no suggestion in Nakanishi that components 11, 12, 13, and 14 could be removed from or serve a useful purpose outside of the article as a whole. The examiner asserts that it is not necessary to remove components 11, 12, 13, and 14. Regardless of whether components 11, 12, 13, and 14 are attached or separate from the rest of the components illustrated in Figure 1, components 11, 12, 13, and 14 constitute an article.

The applicant asserts that Nakanishi does not teach or suggest an article having, in sequence, a substrate, a high refractive index layer, a low refractive index layer and a high refractive index layer. The examiner respectfully disagrees. Assuming *arguendo* that Nakanishi teaches that the first low layer is deposited before the first high layer, Nakanishi teaches, among other things, a five layered structure of low-high-low-high-low. Therefore, Nakanishi teaches a high-low-high layer sequence within the low-high-low-high-low layer sequence.

The applicant asserts that Nakanishi does not teach or suggest that the layers of materials of high and low refractive indices substantially optically match the refractive indices of the layer of the conductive material and the substrate. The examiner respectfully disagrees. Applicant's specification teaches the use of SiO_2 for the low refractive index material, TiO_2 for the high

refractive index material, ITO for the conductive material, and a polymer as the substrate. Nakanishi also discloses the use of SiO_2 for the low refractive index material, TiO_2 for the high refractive index material, ITO for the conductive material, and a polymer as the substrate. Considering the identical or substantially identical materials taught by Nakanishi, compared to the materials taught by the current applicant, it appears that Nakanishi inherently describes that the layers of materials of high and low refractive indices substantially optically match the refractive indices of the layer of the conductive material and the substrate.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

The applicant asserts that Nakanishi does not disclose that the conductive layer (14) is exposed to air. The examiner respectfully disagrees. As is clearly illustrated in Figure 1, the conductive layer (14) has an upper surface exposed to air (see column 3, lines 33-40 and Figure 1).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

3/15/04

ANDREW T. PIZIALI
PATENT EXAMINER

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700